Sugimoto *Maritime Studies* (2016) 15:5
DOI 10.1186/s40152-016-0046-0

Maritime Studies

RESEARCH Open Access

Fish as a 'bridge' connecting migrant fishers with the local community: findings from Okinawa, Japan

Aoi Sugimoto

Correspondence: aoi.sugimoto19@gmail.com
Department of Global Agricultural Sciences, Graduate School of Agricultural and Life Sciences, The University of Tokyo, 1-1-1, 7B Room 531, Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan

Abstract

Migration is part of fishers' livelihood strategies, and the topic of 'migration and fisheries' has gained considerable attention from researchers. Previous works identified negative and positive impacts of migrant fishers on local communities. However, little attention has been given to how social relationships are actually built between migrant fishers and local residents. This paper is based on observations of daily life and social connections in a coastal village in Okinawa, Japan and aims to fill this gap. It also provides a picture of how relationships between migrant fishers and host communities are built. Fieldwork yielded the following results. 1) Migrants moved to Okinawa in various phases; 2) Through their fishing activities, they have established good relationships with other fishers and non-fishing residents; 3) Sharing and selling fishery products has helped migrant fishers and their families gain socio-cultural knowledge and learn about the social conventions of the community, enabling them to integrate themselves into the social fabric of local community life.

Keywords: Coastal community, Migrant people, Social relationship, Customary common rights, Socio-cultural aspect of fishery

Introduction

All over the world, migration is part of fishers' livelihood strategies (e.g. Curran 2002; Njock and Westlund 2008; Njock and Westlund 2010; Binet et al. 2012; Wanyonyi et al. 2016). Seasonal or permanent migration is frequently a response to variations in resource abundance or market access. Where migration gathers locals and migrant fishers in one location, however, social conflicts may happen (e.g., Tawa 2002; Glaser et al. 2012). Such conflicts also impede community resource management (Berkes 2006; Glaser et al. 2010; Cinner 2011; Ferrol-Schulte et al. 2013). On the other hand, there is also evidence of positive impacts on local communities brought by migrant fishers. Several scholars have pointed out that migrant fishers often do contribute socially and economically (e.g. Haakonsen 1991; Duffy-Tumasz 2012), even though they have been often excluded from discussions and practices regarding fisheries management and related development projects (Njock and Westlund 2010; Crona and Rosendo 2011). In parallel, it has been suggested that migrant fishers who have assimilated into communities via intermarriage or through kinship and social ties do not

differ behaviorally from members of the host community (e.g. Kramer et al. 2002; Cassels et al. 2005). However, no studies have conducted a detailed analysis of how such assimilation is actually achieved. This paper, therefore, aims to provide a picture of the process by which relationships between migrant fishers and their host communities are built, based on observations of daily life and social connections in Shiraho, coastal village in Okinawa, Japan. The discussion focuses on the common use of marine resources and the distribution of the fish catch, which connects migrant fishers with local residents.

Characteristics of Shiraho

Ishigaki Island in Okinawa is located in the most southwestern part of Japan; its climate is categorized as subtropical (Fig. 1). Shiraho village is located in the southeastern part of Ishigaki Island; it has a population of 1570, or 703 households (Ishigaki City 2014). Fishing is regularly carried out by 20 fishing households, while others (men and women) take part in fishing occasionally.

Ethnic diversity

The term 'ethnicity' refers to "the cultural practices and outlooks of a community, which identifies them as a distinctive social group" (Giddens and Sutton 2013).

This paper divides the residents of Shiraho into locals and migrants. 'Locals' are defined as people who belong to *utaki* (御嶽), or local places of worship (Figs. 2 and 3), and are believed to be under the protection of the local deity. By contrast, 'migrants' are those who are not under the protection of the *utaki*, having migrated to the village of their own accord. Migrants are of two types: people who immigrated before and just after World War II from other Okinawan islands and those who immigrated after the 1990s from outside of Okinawa Prefecture, mostly from the Japanese mainland. Migrants of the first type are called *kiryu-minn* (寄留民), a word that consists of '*kiryu* (寄留)', meaning 'call at', and '*minn* (民)', meaning 'person'. Migrants of the second type

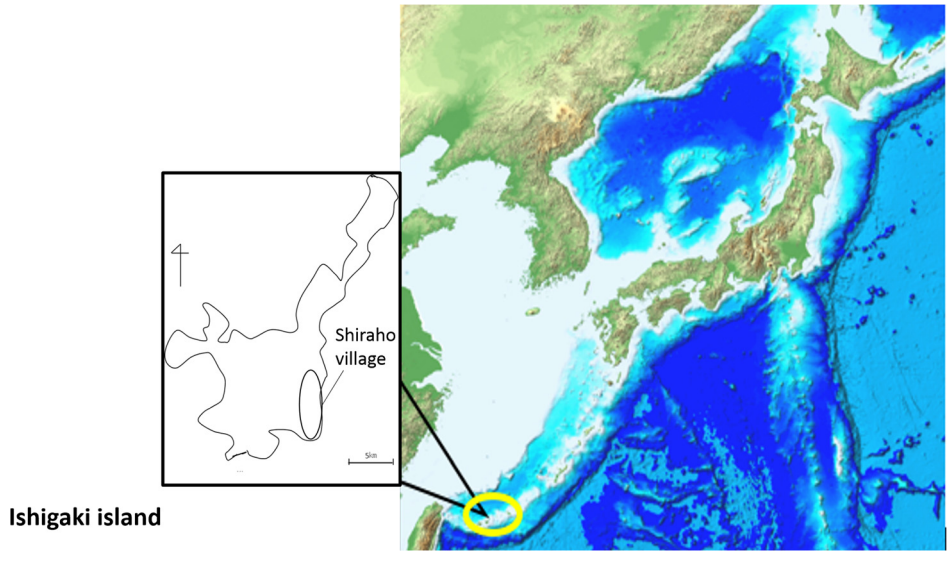

Fig. 1 Location of Ishigaki Island and Shiraho Village

Fig. 2 An *utaki*, a local place of worship

are called *naicha*; in the Okinawan dialect, a *naicha* is a person from the Japan mainland.

Fishing activities

People in Okinawan coastal communities have long used their village lagoons for subsistence fishing when not farming and during their leisure hours. Such farmer-fishers have traditionally owned and managed such village lagoons as common pool resources (e.g., Kumamoto 1995; Tabeta 1990). Alongside such traditional fishing activities (Fig. 4), fishing as a full-time profession (Fig. 5) was introduced by migrants from the Miyako Islands after World War II (Tabeta 1990). This paper investigates both forms of fishing activity.

This paper uses the term 'fish' to refer to any seafood products harvested around the island and distributed in the community. The term refers to finfish, shellfish, octopus, and seaweed. Fish is often consumed within the household or shared with relatives, neighbors, and friends. In addition to these channels of distribution, migrant fishers and their families initiated the practice of fish-peddling (selling fish from door-to-door) (Tabeta 1990). This paper examines both types of fish distribution.

Methodology

This study is based on literature review and ethnographic fieldwork. Fieldwork was carried out for 140 days in total from November 2009 to August 2011, during which time

Fig. 3 Female priests welcoming the village god

Fig. 4 Subsistence fishing (seaweed gathering) by local women

the author resided in the village. The total number of informants was 105: 43 local residents, 43 *kiryu-minn*, and 19 *naicha*. Local government officials and NGO personnels also helped by introducing informants. Informants were selected through snowball sampling. Most of the data were obtained through informal, semi-structured interviews and participatory observation of local residents' daily lives, including their fishing activities and the distribution of the catch. To examine fish peddling, I followed a *kiryu-minn* seller, who sold fish caught by her son, as well as a *naicha* seller, who sold fish caught by himself, for 45 days in July and August 2011.

The common use of marine resources

Ethnic diversity in Shiraho village

A massive tsunami is said to have killed as much as 95 % of the population of Shiraho Village in 1771. The village was repopulated by survivors, who numbered only 28, and 418 immigrants from Hateruma Island of Okinawa who were forced to move to Shiraho by a policy of the Ryukyu government (Committee of Shiraho Village History Research 2009). Their descendants comprise the local population; all belong to *utaki*. Every village in Okinawa has several *utaki,* which are believed to be of central importance to the spirit of the village (Nakamatsu 1990a).

Fig. 5 Professional fishing (night-time spear fishing) by migrants

Previous studies on rural Okinawa have also regarded people who belong to *utaki* as 'villagers' (Yoshida 2010). By contrast, 'migrants' can be categorized into two types: *kiryu-minn* and *naicha. Kiryu-minn* immigrated to Shiraho to seek better livelihoods, drawn by the famous richness of the agricultural fields of Ishigaki Island (e.g., Ishihara and Aniya 1978). *Naicha* have immigrated recently to take advantage of the pleasant climate; immigration in this vein has been a kind of social phenomenon in Japan in recent decades (Tada 2004).

According to the head of the Shiraho Community Center, at present, locals account for approximately 60 % of the total village population. The *kiryu-minn* and *naicha* account for approximately 30 % and 10 % of the population, respectively. It can be said that daily events in the life of the community such as village public hall activities, seasonal festivals, and parent-teacher association activities engage the participation of all kinds of residents including locals, *kiryu-minn*, and *naicha,* regardless of their place of birth. However, despite the lack of obvious differences in their daily lives, there exists a clear recognition that only local people are 'real Shiraho people', indicating that there is a social boundary between local peoples and migrants. As explained above, only local people can belong to *utaki.* Thus, only local people can participate in village rituals held inside *utaki* (Fig. 3), which are performed by the priests of each *utaki* and are of central importance to the spirit of the village (e.g., Nakamatsu 1990a). Residents know who is local and who is not based on their family name or even by their face. In the local population, there are only a few dozen family names, which makes it extremely easy for residents to differentiate between those who are locals and those who are not. Even though both local people and migrants are of the same nationality and speak the same language, in the context of daily life, residents recognize who is and is not local. For example, a *kiryu-minn* born in Shiraho whose parents had immigrated to the village around 60 years ago said, "We don't know the customs of Shiraho since we are *kiryu-minn*, people who are not totally of the village."

Furthermore, there also appear to be conflicts between the ethnic groups. A police officer thus pointed out that many incidents in Ishigaki are caused by personal conflicts between islanders and *naicha.* In one instance, a local person was angered when several *naicha* disturbed a village ritual being held inside an *utaki*, reporting to the police that the ritual was too noisy.

Thus, at present, both locals and migrant people participate in the daily life of the village; however, there is a clear recognition of ethnic boundaries and some conflicts have taken place as a result of ethnic diversity.

Fishing activities

Coastal resource management

Farmer-fishers in Okinawan coastal communities have traditionally owned and managed the seas as common pool resources (e.g., Kumamoto 1995; Tabeta 1990). As time passed (after the replacement of the Ryukyu government by Okinawa prefecture in 1872), access to the lagoons became increasingly open, even to people from other villages, islands, and prefectures.

Despite this semblance of 'open-access', the residents of Shiraho actively fought against a plan of the Okinawa prefectural government in 1979 to construct a new

airport over the village lagoon; the village continued to engage in activism for over 10 years[1] (Yanaka 2001). Scholars investigated why and how such activism had occurred and found that although no rules pertaining to the regulation of the lagoon existed, the lagoon was viewed as a space collectively owned by the village. They pointed out that although the construction plan had already been agreed on by the Yaeyama Fisheries Cooperative Association (which owns the official fishing rights, but is mainly composed of people from outside of Shiraho[2]) located in Ishigaki island and the government, Shiraho villagers successfully fought the agreement on the basis of customary rights over the lagoon (e.g., Kumamoto 1995; Kumamoto 2010; Yanaka 2001). Hence, the Shiraho lagoon is accessible to non-villagers as well as villagers; it is the village's common sea at the same time.

Secondary and minor subsistence fishing

In Shiraho, as in many other coastal villages in Okinawa, the lagoon has been utilized by local, farmer-fishers, including women, for secondary or minor subsistence activities for a long time (Tamanoi 1995; Tabeta 1990). Many coastal communities in Okinawa attach religious value to the ocean. In the Okinawan islands, there is a belief in the existence of a 'paradise' over the ocean, '*niraikanai*', where one should never want for anything thanks to the bountiful gifts available to the community such as schools of fish, agricultural products, precious driftage, visitors who bring (for example) new techniques and cultures, and various other blessings (Nakamatsu 1990b: 266). In Okinawan society, this view of the world contributed to the notion that beach shores and reef edges, situated on the boundary between the ocean and the land (in other words, between *niraikanai* and the real world) are a gateway to the world of spirits and ancestors, and that lagoons are intermediary places through which blessings are brought to the community (Nakamatsu 1990b: 268). Thus, as can be seen from history and the region's beliefs, coastal communities in Okinawa have considered the village common seas to have economic, social, and cultural value.

Introduction of professional fishing

In addition to subsistence fishing, professional fishing was initiated by *kiryu-minn*, who immigrated to Shiraho after World War II (Tabeta 1990). It was a traumatic time with severe food shortages caused by agricultural devastation and a serious lack of labor due to the war. Local residents had a difficult time making a living until around 1962. During this time, the immigration of *kiryu-minn* helped to stem the serious lack of labor and greatly contributed to the survival from postwar food shortages (Ishihara and Aniya 1978).

As mentioned earlier, Shiraho lagoon has two aspects: it is, simultaneously, 'open-access' and a 'common waters'. Interviews revealed that the lagoon was not managed as strictly as land and agricultural fields; it was managed rather more flexibly. For example, some *kiryu-minn* elders in their 70s said that they had "started fishing, since it was hard to rent land from others" and a local person in her 80s said that "*kiryu-minn* started fishing because they had no land." Yanaka (2001) also mentioned that one characteristic of the Shiraho lagoon was the fact that it was "open for everyone." Thus, the 'open-access' nature of the lagoon enabled *kiryu-minn* fishers to catch fish and substantially contribute to the village as suppliers of animal protein in the postwar period.

An additional point to mention is that, according to informants, at the time fishery resources were rich, they were plentiful enough to feed not only local people but also migrants. Elderly residents who remember the ocean of old times mentioned its great richness, a richness that enabled them to catch "too much": one *kiryu-minn* in his 50s stated, "At that time (around 30 years ago), I could catch 10,000 yen[3] worth of octopus just by swimming to the reef edge and back." I did not obtain any statement from the elderly or anyone else which indicated that a decrease in fishery resources had occurred with the arrival of the *kiryu-minn*, despite the fact that some local people perceived a social boundary between themselves and the migrants. Similarly, Yanaka (2001:125) noted that the Shiraho lagoon contained a "treasury of fishery products that could never be exhausted, however many migrants arrived." Thus, in combination, food shortages, the 'open-access' nature of the village common waters, and the richness of its fishery resources enabled some *kiryu-minn* to build livelihoods and to settle in Shiraho, as they were not excluded from utilizing the coastal resources that had such economic, social, and cultural value for the community.

Status of subsistence and professional fishing

Table 1 presents the fishing activities observed during fieldwork. Previous studies (Tabeta 1986; Yanaka 2001) have regarded subsistence fishing and professional fishing as fundamentally different because the subsistence fishing was practiced by locals and the professional fishing was practiced by migrants, and because these two has different fishing methods. At present, however, there is no strong distinction between the two because both locals and migrants are engaged in the majority of fishing methods used, with the exception of octopus spearfishing (Table 1).

Currently, there are 20 fishers who are mainly supporting their livelihood by fishing and are recognized as such by other local residents: 15 are *kiryu-minn,* 2 are *naicha*, and only 3 are locals. Hence, *kiryu-minn* comprise three-quarters of the total number of fishers. Moreover, interviews with *naicha* fishers indicated that they had immigrated and started fishing because they were friends with or had been invited by other migrant

Table 1 Fishing activities directly observed during fieldwork

Fishing method		No. of people	Ethnicity
Net fishing		11	*Locals:* 6 *Kiryu-minn:* 5 *Naicha:* 1
Spear fishing	Octopus	4	*Kiryu-minn:* 4
	Other fish	19	*Locals:* 4 *Kiryu-minn:* 13 *Naicha:* 2
Rod fishing	Shore fishing	4	*Locals:* 2 *Kiryu-minn:* 2
	Boat fishing	9	*Locals:* 6 *Kiryu-minn:* 3
Gathering	Seaweed	9	*Locals:* 2 *Kiryu-minn:* 6 *Naicha:* 1
	Shellfish	5	*Locals:* 1 *Kiryu-minn:* 4

fishers who were already engaged in fishing in Shiraho. A typical narrative from one of the *naicha* fishers is as follows: "I already liked the ocean. That's why I immigrated to Ishigaki Island and became involved in fishing. One day, as I was preparing to do some spearfishing near Ohama,[4] person A (a *kiryu-minn* fisher from Shiraho) suddenly called my name. He said, 'Hey, let's do it together.' I wasn't so bad at catching fish back then. I got him to think I was talented, right? After that, we began to go fishing together." Notably, all 17 migrant fishers, who accounted for more than 80 % of the fishers in Shiraho, had immigrated to Shiraho to do fishing or had begun to fish after migrating. Ethnic differences which were discussed in Ethnic diversity carried no substantial weight in regard to fishing. Fieldwork confirmed that migrant fishers and residents generally had good relations and would enjoy fishing, eating and drinking together and savoring the catch of the day.

Distribution of the fish catch

In Shiraho, people exchange and share various goods such as vegetables and fish with relatives, neighbors, and friends. This custom is called *kousai* (交際), which means relationship in Japanese. In this paper, I define *kousai* as the custom of exchanging tangible goods in order to maintain social relationships.[5] *Kousai* in Shiraho has the following characteristics:

1. It always needs to be reciprocated,
2. It is evidence of a good, continuous social relationship, and
3. When a social relationship breaks, *kousai* stops as well.

Distribution of the fish catch is one of the occasions that *kousai* takes place. For example, elderly women often enjoy gathering seaweed in spring; they exchange and share their surplus through *kousai*. It is also popular to exchange and share Japanese lobsters through *kousai*. For example, some young residents, including both fishers and non-fishers, attempt to catch lobsters not for their own consumption but for *kousai* in the summertime, a time of many family and community gatherings such as *Hounensai* (豊年祭), the Harvest Festival, and the Bon (盆), an annual festival that welcomes ancestral spirits back.

Alongside the traditional sharing of the catch for *kousai*, *kiryu-minn* fishers commoditized the fish catch by peddling (Tabeta 1986). Fish peddling is currently practiced by approximately 10 residents, including local fishers and *kiryu-minn* fishers and their families (Table 2). Peddled fish are priced by the community: not through formal or official means, but in more informal ways such as through daily conversation or in information sharing among fishers. According to the wives of elderly fishers, several *kiryu-minn* fishers and their families set the village price and 'newcomers' followed these. Although the prices can change flexibly as long as both seller and customer consent, informants agree that prices for many fish items have remained the same for a long time. Prices that substantially diverge from the set ones are not acceptable to residents.

I observed 51 cases of fish sale involving 35 customers : 17 local people, 10 *kiryu-minn*, 1 customer from another village in Ishigaki Island, and seven cases in which the

Table 2 Residents engaged in fish peddling

Seller	Ethnicity	Fish supplier
A	*Kiryu-minn*	A's son
B	*Naicha*	B
C	*Kiryu-minn*	C
D	*Locals*	D's brother
E	*Locals*	E
F	*Locals*	F's uncle
G	*Naicha*	G
H	*Kiryu-minn*	H's husband
I	*Kiryu-minn*	I
J	*Kiryu-minn*	J

customer's origin could not be identified. There did not appear to be any *naicha* customers. All customers were in their 40s or older and more than 90 % were elderly (older than 60).

As previously explained, the custom of *kousai* is involved in gift-giving transactions. In other words, transactions in which money does not change hands. However, it was found that *kousai* is also involved in financial transactions pertaining to fish peddling, and that the peddling is also one way that *kousai* takes place.

First, as described earlier, fish sold are priced by the community. The seller has two prices: the formal price and the discount price. Table 3 shows all of the discounts and additional services (service fee) provided by Sellers A and B that were observed in the 45 days of participatory observation. In 11 out of the 24 trades that Seller A engaged in and in all of the five trades that Seller B engaged in, a discount or additional service was provided. Furthermore, Table 3 shows instances of customer reciprocity. In five of

Table 3 Discounts and reciprocal exchanges directly observed during fieldwork

Seller	Customer	Price (Formal→Discount)	Service fee	Return
Kiryu-minn	*Kiryu-minn*	4500→4000	500JPY + trash disposal services	Beverage
Kiryu-minn	*Locals*	450→400	50	Vegetable
Naicha	*Kiryu-minn*	4300→4000	300	
Naicha	*Locals*	2300→2000	300	
Kiryu-minn	*Locals*	1200→1000	200	Snack
Kiryu-minn	*Kiryu-minn*	1100→1000	100	Fruit
Kiryu-minn	*Locals*	1200→1000	200	
Kiryu-minn	*Locals*	1150→1000	150	
Kiryu-minn	*Kiryu-minn*	1400→1000	400	
Kiryu-minn	*Locals*	1400→1300	100	Rice cake
Kiryu-minn	*Locals*	1600→1000	600	
Naicha	*Locals*	1100→1000	100	
Kiryu-minn	*Locals*	1100→1000	100	
Kiryu-minn	*Kiryu-minn*	3700→3000	700	
Naicha	*Locals*	3300→3000	300	
Naicha	*Locals*	2400→2000	400	
		1200→1000	200	

the 11 trades in which Seller A provided a discount or additional service, the buyer gave Seller A vegetables or beverages. On the day observed, no buyers gave Seller B anything while buying fish, but on another day, he noted that "Things like that [i.e., discounts or additional services], in turn, change into other things, like vegetables."

Seller B explained how he started peddling as follows: "Other Shiraho fishers told me I could sell here, too, but I had no idea how to do it. Who would buy? How could I sell? How much could I sell fish for? So, at the beginning, I just tried to sell to people whose eyes met mine, something like that. I even had one experience where a mother asked me to bring my fish by her house, but when I visited, she treated me coldly and declined to buy anything. Well, she might have thought it was strange that this *naicha* [had brought his fish]. However at a certain point, I gradually came to be known as a fisherman; I became trusted and became able to sell my fish."

With the information obtained from the interviews and observations detailed above, the nature of fish peddling in Shiraho was clarified:

1. It is natural for peddlers to provide discount or additional service;
2. Such kinds of discount or additional service require reciprocation;
3. Not just anyone can sell fish. To sell fish, a good social relationship between the buyer and seller that are based on mutual trust are needed.

Comparing the nature of fish peddling to that of *kousai* as described earlier, it can be observed that both activities have several conditions in common: both require a degree of reciprocity and both are predicated on good social relationships. Thus, the discounts and additional services that emerge in peddling can be considered a form of *kousai* and, furthermore, the provision of discounts and additional services requires reciprocity as a form of relationship validation. This interpretation can be also supported by a remark of a *kiryu-minn* fisher; 1 day, I asked a *kiryu-minn* fisher how often he practiced *kousai* in relation to his fish catch. He answered, "Every other day, maybe. I visit close friends, relatives, and neighbors. I also give fish to my customers for free. This is also one kind of *kousai*, you know." It can be said, therefore, that *kousai* is also present in the context of fish peddling and that the fish sold are not only commodities but also a part of the *kousai* exchange.

Regarding the process that led him to begin peddling fish, one *naicha* fisherman, C, stated the following: "'That *naicha* engage in fishing and he sells fish for low price' such kind of gossip spread in the community, and some elderly wives came to visit me and asked, 'Do you have fish?'… it is quite common for them (*kiryu-minn* fishers) to be asked to bring fish like that, because for a long time, they have been fishers here."

This point was also previously demonstrated by Seller B, who said that *naicha* fishers have been peddling since they "came to be known as fishers" and were asked by elderly women of the community to bring fish by. Furthermore, based on the narrative presented above of fisher C, it can be said that elderly women in Shiraho often ask both *naicha* and *kiryu-minn* fishers to "bring fish by." Thus, among elderly women in Shiraho, there is a custom of asking for people engaged in fishing to bring fish by, even if it is just for conversation purposes. Though it was conceivable that this custom existed not only for fish but also for other goods such as agricultural products, during

my fieldwork, I did not find a single example of people being asked to bring goods other than fish. When I asked one resident whether this was the case, he replied, "No, it's only about fish. Shiraho is a farming village. Every household farms their own vegetables. It is fishers who have no fields and have built livelihoods by selling fish." Thus, there is a custom only for asking fishers to bring their wares. Perhaps this custom was formed among elderly women, who engaged in daily cooking and knew that *kiryu-minn* sold fish for a living.

For migrant fishers and their families who have become known in the community, peddling is practiced in a very simple way. As they live in a small community, residents are well aware of who likes what kinds of fish, who is good at catching what, who goes fishing when, and who needs fish when. Consequently, on occasion, customers ask fishers to bring fish and fishers approach customers to sell fish. Such relations continue as long as good social relationships based on mutual trust exist and even when reciprocal exchanges are not engaged in on the spot during the actual fish sale.

Table 3 includes five cases in which tangible commodities were exchanged, however, 'intangible rewards' were also given to fishers during peddling.

In Shiraho, people traditionally eat rice cakes wrapped in banana leaves during the period of *Hounensai* (豊年祭), the Harvest Festival. One day, as Seller A was preparing rice cakes wrapped in banana leaves, a local female neighbor in her 70s came to A's house in order to pay for fish that had been sold to her a few days prior. The customer and A chatted for a while as A wrapped rice cakes, and the customer undertook to teach A how to wrap, cut the leaves, and season the rice cakes in the 'Shiraho style'. This evidences the fact that as a *kousai* practice, fish peddling includes the exchange of goodwill in addition to the actual transaction of fishery products. Thus, it can be said that fish peddling as *kousai* enables migrant fishers and sellers to learn the social conventions of the community. All residents, regardless of their birthplace, engage in *kousai* in the context of fish peddling. It is also conceivable that by bringing their customers' favorite fish by and by fulfilling their orders exactly, migrant fishers and their families build trust with and give a positive impression to their customers.

Discussion

At present, approximately 40 % of the residents of Shiraho Village are considered migrants. Even though both local people and migrants contribute to community life, there are ethnic boundaries and even conflicts between local people and migrants. Some migrants came to the community in order to fish, or began fishing after arriving. Through their fishing-related activities, they have forged good relationships with other fishers and with non-fishing residents. Moreover, the practice of *kousai* in the context of fish peddling helps migrant fishers and their families build social relationships within the community. Ultimately, *kousai* in the context of peddling enables them to build trust with other residents. Thus, it can be said that fish in Shiraho works as a 'bridge' and has enabled migrant fishers to integrate themselves into the social fabric of local community life.

When considering the factors that contributed to the emergence of fish as a bridge between peoples, the traditional importance and 'open-access' nature of the common waters of the village can be raised. Engaging with 'open-access' coastal resources has been beneficial to the integration of migrant fishers into community life: such coastal

resources yield fishery products but are also spiritually iconic, provide opportunities for deepening connections with others, and thus are highly valued by the host community in economic, social, and cultural terms.

This paper also presents another perspective on 'open-access' coastal resources. As previously explained, the villagers of Shiraho had grounds for successfully fighting the airport construction plan because of their customary common rights, despite the signing of an agreement regarding airport construction between the government and Yaeyama Fisheries Cooperative.[6] In Japan, customary common rights for coastal fishing were established as early as the beginning of Edo era from 1603 (e.g., Kumamoto 2010; Kurokura et al. 2011; Makino 2011). Such customary common rights have been categorized as *sou-yu* (総有) in the Japanese legal code; the term *sou-yu* is equivalent to *Gesamteigentum* in the German legal code (Kumamoto 2010). The terms *sou-yu* and *Gesamteigentum* both refer to a type of common property in which members are not allowed to own or abandon their share of the property (e.g., Inoue 2001). Such collective ownership, which cannot be found in the Roman legal code but is common in Japanese rural communities, might promote membership 'fuzziness' in *sou-yu* groups. What can be inferred is that the 'open-access' nature of the common sea of the village might not be simple openness, but rather, a conditional kind of openness—members of the *sou-yu* group are always the ones to judge who can be entitled to use coastal resources. Hence, in the case of Shiraho, it can be concluded that the reason the *sou-yu* group (village) rejected the airport construction plan but allowed the migrant Shiraho fishers to use the lagoon was because the latter had become integrated into the community and had adopted its socio-cultural mannerisms, such as the practice of *kousai.*

Concluding remarks

This paper deals with social and cultural aspects of fisheries (e.g., Urquhart et al. 2013; Pitcher and Lam 2015). It focuses specifically on the relationship between migrants and locals, demonstrating that coastal resources can function as a 'bridge' between migrant fishers and the local community, in two ways. The first follow from inclusive property relations, which provide migrants a place in the fishing economy next to locals. The second is a result of the adoption by migrants of cultural values in fish distribution. Other scholars (e.g. Kramer et al. 2002; Cassels et al. 2005) point out that the migrant fishers gradually adopt similar behaviors to locals through social events like a marriage. This paper argues that the coastal resource itself helps migrants integrate themselves into the local community.

Endnotes

[1]Finally, in April 1989, because of national and international criticism, the plan was amended to relocate the runway 4 km north. Later, the plan was suspended and several alternative locations were proposed.

[2]The Yaeyama Fisheries Cooperative mainly consists of migrant fishers not from Shiraho but from other areas of the island. Hence, even though several Shiraho fishers belonged to the Yaeyama Fisheries Cooperative, it may be assumed that there were so few of them that the fisheries cooperative could not be considered representative of the customary common rights of Shiraho.

[3]Equivalent to US$100, assuming 100 JPY = US$1.

[4]A coastal area near the town located on the western side of Shiraho.

[5]The custom of *kousai* might be closely related to and could be explained by the concept of *giri*, which has been regarded as one of the most important concepts in Japanese culture (e.g., Benedict 1946). According to Befu (1968), *giri* is a moral imperative to perform one's duties toward the other members of one's group and is probably the most important motivating force behind gift-giving in Japanese rural societies. Because of the concept, one is morally obligated to give and to reciprocate gifts when demanded by custom. He also stated, "since gift-giving is an act of *giri*, and since *giri* requires reciprocation, a gift naturally calls for a return gift" (Befu 1968).

[6]In fact, the conflict over the construction of Shiraho airport was quite exceptional in the history of Japanese fishing rights. When modern law was established, the government of Japan requested that coastal communities set up local fishery cooperatives. These cooperatives were granted these local communities' customary common rights for fishing along a designated coast. In other words, fishery cooperatives in general inherited local communities' customary common rights for fishing. However, the Yaeyama Fisheries Cooperative is mainly comprised of migrant fishers who had settled not in Shiraho but in other parts of Ishigaki Island; hence, the cooperative did not inherit customary common rights from the local community. This mismatch in the granting of fishing rights can be considered a cause of the Shiraho airport conflict (e.g., Kumamoto 1995; 2010).

Competing interests
The author declares that he/she has no competing interests.

Author's contributions
The author designed the whole work, collected, analyzed data, and wrote the manuscript.

Author's information
This work is based on the author's master thesis submitted in Department of Global Agricultural Sciences, Graduate School of Agricultural and Life Sciences, The University of Tokyo in AY2011. Currently the author belongs to the same institution as a PhD student.

Acknowledgement
This paper is based on my master thesis supervised by Professor Makoto Inoue (The University of Tokyo), Associate Professor Motomu Tanaka (Kochi University). Professor Hisashi Kurokura and Associate Professor Nobuyuki Yagi (The University of Tokyo) assisted me to deepen the discussion and to write this paper. I also wish to thank Ms. Rachel Olanoff and Dr. Robert Blasiak who assisted me in editing the English version, and the journal editors and reviewers who gave me beneficial comments to improve the discussion of this paper.
Lastly I wish to express my deepest thank to every resident in Shiraho village who cooperated with me to stay there and carried out this work.
This paper was funded for publishing by the JSPS KAKENHI (Grant number 4403) "New Ocean Paradigm on its Biogeochemistry, Ecosystem, and Sustainable Use (NEOPS)".

Received: 12 August 2015 Accepted: 19 April 2016
Published online: 11 July 2016

References

Befu, H. 1968. Gift-giving in a modernizing Japan. *Monumenta Nipponica* 23(3/4): 445–456.
Benedict, R. 1946. *The chrysanthemum and the sword: patterns of Japanese culture*, 1st ed. Boston: Houghton Mifflin.
Berkes, F. 2006. From community-based resource management to complex systems: the scale issue and marine commons. *Ecology and Society* 11(1): 45.
Binet, T., P. Failler, and A. Thorpe. 2012. Migration of senegalese fishers: a case for regional approach to management. *Maritime Studies* 11: 1.
Cassels, S., S.R. Curran, and R. Kramer. 2005. Do migrants degrade coastal environments? Migration, natural resource extraction and poverty in North Sulawesi, Indonesia. *Human Ecology* 33(3): 329–363.
Cinner, J.E. 2011. Social-ecological traps in reef fisheries. *Global Environmental Change* 21: 835–839.
Committee of Shiraho Village History Research. 2009. *History of Shiraho Village*. Okinawa: Committee of Shiraho village history research (in Japanese).
Crona, B., and S. Rosendo. 2011. Outside the law? Analyzing policy gaps in addressing fishers' migration in East Africa. *Marine Policy* 35: 379–388.

Curran, S. 2002. Migration, social capital, and the environment: considering migrant selectivity and networks in relation to coastal ecosystems. *Population Development Review* 28: 89–125.
Duffy-Tumasz, A. 2012. Migrant fishers in West Africa: Roving Bandits? *African Geographical Review* 31(1): 50–62.
Ferrol-Schulte, D., M. Wolff, S. Ferse, and M. Glaser. 2013. Sustainable livelihoods approach in tropical coastal and marine social-ecological systems: a review. *Marine Policy* 42: 253–258.
Glaser, M., G. Krause, R.S. Oliveira, and M. Fontalvo-Herazo. 2010. Mangroves and people: a social-ecological system. In Mangroves dynamics and management in North Brazil. *Ecological Studies* 211: 307–351.
Glaser, M., P. Christie, K. Diele, L. Dsikowitzky, S. Ferse, I. Nordhaus, A. Schluter, K.S. Manes, and C. Wild. 2012. Measuring and understanding sustainability-enhancing processes in tropical coastal marine social-ecological systems. *Current Opinion in Environmental Sustainability* 4: 300–308.
Giddens, A., and P.W. Sutton. 2013. *Sociology*, 7th ed. Cambridge: Polity Press.
Haakonsen, J.M. 1991. The role of migrating fishermen in west Africa : what we know and what we still need to learn. In *La recherche scientifique face a la peche artisanale = Research and small-scale fisheries*, ed. D. Jean-Rene, L. Jacques, and J. Weber. Paris: OSTROM.
Inoue, M. 2001. Commons as an institution for collaborative management of natural resources. In *Sociology of Commons*, eds. Inoue, M., Miyauchi, T., 1–28. Tokyo: Shin-yo-sha (in Japanese).
Ishigaki City. 2014. *Statistical report no. 37*. http://www.city.ishigaki.okinawa.jp/home/kikakubu/kikaku/toukei/h26/all.pdf. Accessed 22 April 2016 (in Japanese).
Ishihara, M., and M. Aniya. 1978. An analysis of the actual conditions of settlement in the Yaeyama Islands with reference to changes in reclamation, migration, and administration. *Bulletin of the Department of Sociology, Okinawa International University* 6(1/2):151–217 (in Japanese).
Kramer, R.A., S.M.H. Simanjuntak, and C. Liese. 2002. Migration and fishing in Indonesian coastal villages. *Ambio* 31(4): 367–372.
Kumamoto, K. 1995. *Sustainable development and living systems*. Tokyo: Gakuyo-shobo (in Japanese).
Kumamoto, K. 2010. *Whose ocean?: Reclaiming, dams, nuclear power plants, and fishing rights*. Tokyo: Nihon hyo-ronnsya (in Japanese).
Kurokura, H., H. Matsushima, S. Kurohagi, H. Yamashita, A. Hino, K. Ikuta, S. Seino, M. Ariji, K. Furuya, J. Okamoto, and N. Yagi. 2011. Relations between the Aqua-sphere and Human life. In *Introduction for Fisheries and Aquatic Biology*, ed. H. Kurokura and N. Ramaiah, 233–306. Tokyo: Terrapub.
Makino, M. 2011. A Brief Institutional History of Japanese Fisheries Management. In *Fisheries Management in Japan: Its Institutional features and Case Studies*. New York: Springer.
Nakamatsu, Y. 1990a. *Spirits and the Village*. Tokyo: Shinsensha (in Japanese).
Nakamatsu, Y. 1990b. Folklore of the Lagoon. *Folklore Culture* 2: 265–292 (in Japanese).
Njock, J.C., and L. Westlund. 2008. Understanding the Mobility of Fishing People and the Challenge of Migration to Devolved Fisheries Management. In *Achieving Poverty Reduction through Responsible Fisheries. Lessons from West and Central Africa*, ed. L. Westlund, K. Holvoet, and M. Kébé, 85–97. Rome: FAO Fisheries and Aquaculture. Technical Paper No. 513.
Njock, J.C., and L. Westlund. 2010. Migration, resource management and global change: experiences from fishing communities in West and Central Africa. *Marine Policy* 34: 752–760.
Pitcher, T.J., and M.E. Lam. 2015. Fish commoditization and the historical origins of catching fish for profit. *Maritime Studies* 14: 2.
Tabeta, M. 1986. Lagoon economics and communal fisheries. *Pollution Research* 16(1): 33–40 (in Japanese).
Tabeta, M. 1990. *Economics of the commons*. Tokyo: Gakuyo-shobo (in Japanese).
Tada, O. 2004. *Emergence of the Okinawan image: cultural studies of the blue ocean*. Tokyo: Toyokeizai shimpo-sha.
Tamanoi, Y. 1995. The Ocean as Commons. In *Common Oceans*, ed. H. Nakamura and Y. Tsurumi, 2–10. Tokyo: Gakuyo-shobo (in Japanese).
Tawa, M. 2002. Resource Conflicts in the Strait of Malacca. In *Troubled Seas*, ed. T. Akimichi and N. Kishigami, 60–80. Kyoto: Jimbun-shoin (in Japanese).
Urquhart, J., T. Acott, and M. Zhao. 2013. Introduction: social and cultural impacts of marine fisheries. *Marine Policy* 37: 1–2.
Wanyonyi, I.N., A. Wamukota, S. Mesaki, A.T. Guissamulo, and J. Ochiewo. 2016. Artisanal fisher migration patterns in coastal East Africa. *Ocean and Coastal Management* 119: 93–108.
Yanaka, S. 2001. Shiraho Lagoon, Ishigaki Island: An Issue over the Construction Plan of the New Ishigaki Airport. In *Sociology of the Commons*, ed. M. Inoue and T. Miyauchi, 120–141. Tokyo: Shinyosha (in Japanese).
Yoshida, K. 2010. *Rethinking village communities in Okinawa: focusing on interactions between newcomers and locals in the northern part of Ishigaki Island*.. Jinbun Gakuho (Journal of Science and Humanities), Department of Humanities, Tokyo Metropolitan University 423: 71-102 (in Japanese).